



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,386	12/12/2001	Kevin P. Baker	GNE.2830P1C55	9794
30313	7590	05/10/2004	EXAMINER	
KNOBBE, MARTENS, OLSON & BEAR, LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			LANDSMAN, ROBERT S	
			ART UNIT	PAPER NUMBER
			1647	

DATE MAILED: 05/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/015,386

Applicant(s)

BAKER ET AL.

Examiner

Robert Landsman

Art Unit

1647

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-47 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 28-47 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Sequence Comparisons A and B.

DETAILED ACTION

1. Formal Matters

- A. The Preliminary Amendment dated 12/12/01, has been entered into the record.
- B. Claims 28-47 are pending and are the subject of this Office Action.

2. Priority

Due to the excessive number of applications from which the present application claims benefit, priority cannot be determined. If Applicants are relying on a parent application in any argument, it is incumbent upon the applicant to provide the serial number and specific page number(s) of any parent application filed prior to the present application which specifically supports the particular claim limitation for each and every claim limitation in all the pending claims which applicant considers to have been in possession of and fully enabled for prior to 12/12/01.

3. Specification

A. Though none could be found, due to the length of the specification, Applicants are reminded that embedded hyperlink and/or other form of browser-executable code are not permitted in the specification. See MPEP § 608.01.

B. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The title recites polypeptides and polynucleotides whereas the claims are drawn to polynucleotides.

C. The specification is objected to since the status of application 09/380,137 should be updated to "now abandoned."

4. Claim Objections

A. The syntax of claims 28-47 could be improved by replacing the phrase "shown in Figure 130 (SEQ ID NO:227)" with "of SEQ ID NO:227" and "shown in Figure 129 (SEQ ID NO:226)" with "of SEQ ID NO:226" where appropriate.

Art Unit: 1647

5. Claim Rejections - 35 USC § 112, first paragraph - enablement

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

A. Claims 28-47 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The deposit of the biological material is considered necessary for the enablement of the current invention (see MPEP Chapter 2400 and 37 C.F.R. §§ 1.801-1.809). Elements required for practicing a claimed invention must be known and readily available to the public or obtainable by a repeatable method set forth in the specification. If a deposit (203269) is made under the terms of the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure (e.g. see 961 OG 21, 1977), and Applicants, their assignee or their agent needs to provide a declaration containing the following:

1. the current address of the ATCC.
2. a declaration, or statement over attorney's signature stating that all restrictions imposed by the depositor on the availability to the public of the deposited biological material be irrevocably removed upon the granting of the patent (see MPEP Chapter 2410.01 and 37 C.F.R. § 1.808).

B. Furthermore, even if a deposit under the Budapest Treaty were made, claims 28-47 would still be rejected under 35 USC 112, first paragraph, because the specification, while then being enabling for SEQ ID NO:226 and 227, does not reasonably provide enablement for polynucleotides or polypeptides having at least 80%, 85%, 90%, 95% or 99% sequence identity to SEQ ID NO:226 or 227, to the protein encoded by ATCC No. 203269, for the extracellular domain thereof, or for vectors and host cells containing these polynucleotides. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. There is no functional limitation in the claims. The claims encompass an unreasonable number of inoperative polypeptides, or polynucleotides which encode these polypeptides, which the skilled artisan would not know how to use.

There are no working examples of polynucleotides or polypeptides less than 100% identical to SEQ ID NO:226 or 227, or the mature form thereof (i.e. lacking its signal peptide). The skilled artisan would not know how to use non-identical polypeptides or polynucleotides on the basis of teachings in the

Art Unit: 1647

prior art or specification unless they possessed a specific function disclosed in the instant specification, in which there is none. While the specification generally describes homologous proteins, Applicants still have not taught to which family of proteins the protein of the present invention belongs. The specification does not provide guidance for using polynucleotides encoding polypeptides related to (*i.e.*, 80%-99% identity) but not identical to SEQ ID NO:226 or 227 which do not have any specific, known function. The claims are broad because they do not require the claimed polypeptide to be identical to the disclosed sequence and because the claims have no functional limitation.

For these reasons, which include the complexity and unpredictability of the nature of the invention and art in terms of the diversity of proteins and lack of knowledge about function(s) of encompassed polypeptides structurally related to SEQ ID NO:227, or their encoding polynucleotides (e.g. SEQ ID NO:226) the lack of direction or guidance for using polypeptides that are not identical to SEQ ID NO:227, and the breadth of the claims for structure without function, it would require undue experimentation to use the invention commensurate in scope with the claims.

6. Claim Rejections - 35 USC § 112, first paragraph – written description

A. Claims 28-47 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims are drawn to polynucleotides having at least 80%, 85%, 90%, 95% or 99% sequence identity with SEQ ID NO:226 as well as vectors and host cells. The claims do not require that the polynucleotides or encoded polypeptides of the present invention possess any particular biological activity, nor any particular conserved structure, or other disclosed distinguishing feature. Thus, the claims are drawn to a genus of polypeptides that is defined only by sequence identity.

To provide adequate written description and evidence of possession of a claimed genus, the specification must provide sufficient distinguishing identifying characteristics of the genus. The factors to be considered include disclosure of complete or partial structure, physical and/or chemical properties, functional characteristics, structure/function correlation, methods of making the claimed product, or any combination thereof. In this case, the only factor present in the claim is a partial structure in the form of a recitation of percent identity. There is not even identification of any particular portion of the structure that must be conserved. Accordingly, in the absence of sufficient recitation of distinguishing identifying characteristics, the specification does not provide adequate written description of the claimed genus.

Art Unit: 1647

Vas-Cath Inc. v. Mahurkar, 19USPQ2d 1111, clearly states “applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention is, for purposes of the ‘written description’ inquiry, *whatever is now claimed*.” (See page 1117.) The specification does not “clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed.” (See *Vas-Cath* at page 1116). As discussed above, the skilled artisan cannot envision the detailed chemical structure of the encompassed genus of polypeptides, and therefore conception is not achieved until reduction to practice has occurred, regardless of the complexity or simplicity of the method of isolation. Adequate written description requires more than a mere statement that it is part of the invention and reference to a potential method of isolating it. The compound itself is required. See *Fiers v. Revel*, 25 USPQ2d 1601 at 1606 (CAFC 1993) and *Amgen Inc. v. Chugai Pharmaceutical Co. Ltd.*, 18 USPQ2d 1016.

One cannot describe what one has not conceived. See *Fiddes v. Baird*, 30 USPQ2d 1481 at 1483. In *Fiddes*, claims directed to mammalian FGF’s were found to be unpatentable due to lack of written description for that broad class. The specification provided only the bovine sequence.

Therefore, only isolated polypeptides comprising the amino acid sequence set forth in SEQ ID NO:227, or encoded by SEQ ID NO:226, but not the full breadth of the claims, meets the written description provision of 35 U.S.C. §112, first paragraph. Applicant is reminded that *Vas-Cath* makes clear that the written description provision of 35 U.S.C. §112 is severable from its enablement provision (see page 1115).

7. Claim Rejections - 35 USC § 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 28-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. Claims 28-47 are vague and indefinite since it is not clear whether or not the protein encoded by the polynucleotide of the present invention is a soluble protein (e.g protease), nor is it disclosed as being expressed on a cell surface. Accordingly, the limitation that the claimed protein comprises an “extracellular domain” is indefinite, as the art does not recognize soluble proteins as having such domains. Further, if the protein had an extracellular domain, the recitation of “the extracellular

Art Unit: 1647

domain"...lacking its associated signal sequence" is indefinite as a signal sequence is not generally considered to be part of an extracellular domain, as signal sequences are cleaved from said domains in the process of secretion from the cell.

B. Claims 41-43 are vague and indefinite since the claim recites "hybridizes" without the recitation of any conditions, or recites "stringent conditions: wherein these conditions are not known. Nucleic acid molecules which hybridize under conditions of "low" stringency would not necessarily hybridize under conditions of "high" stringency. Furthermore, not all conditions of "high" or "low" stringency, for example, are the same. Therefore, it is required that Applicants amend the claims to recite the exact hybridization conditions without using indefinite phrases such as *"for example"* **without adding new matter.**

8. Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

A. Claims 28-47 are rejected under 35 U.S.C. 102(b) as being anticipated by Lal et al. (U.S. Patent No. 5,932,442). The claims recite a polynucleotide at least 80% identical to that of SEQ ID NO:226 or encoding SEQ ID NO:227, as well as fragments (e.g. extracellular domains, with and without signal sequences) thereof. The amino acids encoding the extracellular domain of this protein are not known. The claims also recite nucleic acid molecules which hybridize to SEQ ID NO:226, or one encoding SEQ ID NO:227 as well as vectors and host cells. Lal teach a polynucleotide which is 50.8% identical to SEQ ID NO:226 (Sequence Comparison A) and which encodes the polypeptide which is 59.4% identical to SEQ ID NO:227 (Sequence Comparison B) as well as vectors and host cells (Examples IX – columns 49-50). This nucleic acid molecule will hybridize to that of the present invention even under the most stringent conditions. Since the length of the extracellular domain is not known, it is believed, in the absence of evidence to the contrary, that the limitations of "at least 80%" are met.

Art Unit: 1647

11. Conclusion

A. No claim is allowable.

Advisory information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Landsman whose telephone number is (571) 272-0888. The examiner can normally be reached on Monday - Friday from 8:00 AM to 5:00 PM (Eastern time) and alternate Fridays from 8:00 AM to 5:00 PM (Eastern time).

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Gary Kunz, can be reached on (571) 272-0887.

Official papers filed by fax should be directed to (703) 872-9306. Fax draft or informal communications with the examiner should be directed to (571) 273-0888.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-0700.

Robert Landsman, Ph.D.
Patent Examiner
Group 1600
May 07, 2004


ROBERT LANDSMAN
PATENT EXAMINER

Sequence Comparison A

Sequence 73, Application US/08933750C
 ; Patent No. 5932442
 ; GENERAL INFORMATION:
 ; APPLICANT: Lal, Preeti
 ; APPLICANT: Hillman, Jennifer L.
 ; APPLICANT: Bandman, Olga
 ; APPLICANT: Shah, Purvi
 ; APPLICANT: Au-Young, Janice
 ; APPLICANT: Yue, Henry
 ; APPLICANT: Guegler, Karl J.
 ; APPLICANT: Corley, Neil C.
 ; TITLE OF INVENTION: HUMAN REGULATORY MOLECULES
 ; NUMBER OF SEQUENCES: 98
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Incyte Pharmaceuticals, Inc.
 ; STREET: 3174 Porter Drive
 ; CITY: Palo Alto
 ; STATE: CA
 ; COUNTRY: USA
 ; ZIP: 94304
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Diskette
 ; COMPUTER: IBM Compatible
 ; OPERATING SYSTEM: DOS
 ; SOFTWARE: FastSEQ for Windows Version 2.0
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/933,750C
 ; FILING DATE: September 23, 1997
 ; CLASSIFICATION: 536
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER:
 ; FILING DATE:
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Billings, Lucy J.
 ; REGISTRATION NUMBER: 36,749
 ; REFERENCE/DOCKET NUMBER: PF-0356 US
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: 415-855-0555
 ; TELEFAX: 415-845-4166
 ; TELEX:
 ; INFORMATION FOR SEQ ID NO: 73:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 2028 base pairs
 ; TYPE: nucleic acid
 ; STRANDEDNESS: single
 ; TOPOLOGY: linear
 ; IMMEDIATE SOURCE:
 ; LIBRARY: UTRSN05
 ; CLONE: 1568361
 US-08-933-750C-73

Alignment Scores:

Pred. No.:	1.33e-303	Length:	2028
Score:	2585.00	Matches:	492
Percent Similarity:	97.04%	Conservative:	0
Best Local Similarity:	97.04%	Mismatches:	15
Query Match:	59.45%	Indels:	0
DB:	2	Gaps:	0

US-10-012-121A-227 (1-832) x US-08-933-750C-73 (1-2028)

Qy	326	ThrLeuLeuValAlaIleAspArgAlaAlaCysProGluSerGlyHisProArgValLeuAla	345
Db	8		
		8 ACCCTGCNGGNNGCCATTACCCGACCTGCCCANACAGCCGTACCCCTCGANTCCTGGCT	67
Qy	346	AspSerPheProGlySerSerProTyrGluGlyTyrAsnTyrGlySerPheGluAsnVal	365
Db	68		
		68 GANTCTNTTCTGGCAGTTCCCCTTATNANGGTTACAACTATGGCTCCTTTNACAATGTN	127
Qy	366	SerGlySerThrAspGlyLeuValAspSerAlaGlyThrGlyAspLeuSerTyrGlyTyr	385
Db	128		
		128 TCTNTATCTACCGATGGTCTGGTTNACAGCNCTGGCACTGGGGACCTCTCTTACGGTTAC	187
Qy	386	GlnGlyArgSerPheGluProValGlyThrArgProArgValAspSerMetSerSerVal	405
Db	188		
		188 CAGGGCCGCTCCTTTGAACCTGTAGGTACTCGGCCCGAGTGGACTCCATGAGCTCTGTG	247
Qy	406	GluGluAspAspTyrAspThrLeuThrAspIleAspSerAspLysAsnValIleArgThr	425
Db	248		
		248 GAGGAGGATGACTACGACACATTGACCGACATCGATTCCGACAAGATGTCATTTCGCACC	307
Qy	426	LysGlnTyrLeuTyrValAlaAspLeuAlaArgLysAspLysArgValLeuArgLysLys	445
Db	308		
		308 AAGCAATACCTCTATGTGGCTGACCTGGCACGGAAGGACAAGCGTGTCTGCGGAAAAAG	367
Qy	446	TyrGlnIleTyrPheTrpAsnIleAlaThrIleAlaValPheTyrAlaLeuProValVal	465
Db	368		
		368 TACCAGATCTACTTCTGGAACATTGCCACCATTGCTGTCTTCTATGCCCTTCCTGTGGTG	427
Qy	466	GlnLeuValIleThrTyrGlnThrValValAsnValThrGlyAsnGlnAspIleCysTyr	485
Db	428		
		428 CAGCTGGTGATCACCTACCAGACGGTGGTGAATGTACAGGAATCAGGACATCTGCTAC	487
Qy	486	TyrAsnPheLeuCysAlaHisProLeuGlyAsnLeuSerAlaPheAsnAsnIleLeuSer	505
Db	488		
		488 TACAACTTCCTCTGCGCCCACTGCGCAATCTCAGCGCTTCAACAACATCCTCAGC	547
Qy	506	AsnLeuGlyTyrIleLeuLeuGlyLeuLeuPheLeuLeuIleIleLeuGlnArgGluIle	525
Db	548		
		548 AACCTGGGGTACATCCTGCTGGGGCTGCTTTTCTGCTCATCATCCTGCAACGGGAGATC	607
Qy	526	AsnHisAsnArgAlaLeuLeuArgAsnAspLeuCysAlaLeuGluCysGlyIleProLys	545
Db	608		
		608 AACCACAACCGGGCCCTGCTGCGCAATGACCTCTGTGCCCTGGAATGTGGGATCCCCAA	667
Qy	546	HisPheGlyLeuPheTyrAlaMetGlyThrAlaLeuMetMetGluGlyLeuLeuSerAla	565
Db	668		
		668 CACTTTGGGCTTTTCTACGCCATGGGCACAGCCCTGATGATGGAGGGGCTGCTCAGTGCT	727
Qy	566	CysTyrHisValCysProAsnTyrThrAsnPheGlnPheAspThrSerPheMetTyrMet	585
Db	728		
		728 TGCTATCATGTGTGCCCAACTATACCAATTTCCAGTTTGACACATCGTTCATGTACATG	787
Qy	586	IleAlaGlyLeuCysMetLeuLysLeuTyrGlnLysArgHisProAspIleAsnAlaSer	605
Db	788		
		788 ATCGCCGACTCTGCATGCTGAAGCTCTACCAGAAGCGGCACCCGGACATCAACGCCAGC	847
Qy	606	AlaTyrSerAlaTyrAlaCysLeuAlaIleValIlePhePheSerValLeuGlyValVal	625
Db	848		
		848 GCCTACAGTGCCTACGCTGCCTGGCCATTGTCTATCTTCTTNTCTGTGCTGGGCGTGGTC	907
Qy	626	PheGlyLysGlyAsnThrAlaPheTrpIleValPheSerIleIleHisIleIleAlaThr	645
Db	908		
		908 TTTGGCAAAGGGAACACGGCGTTCTGGATCGTCTTCTCCATCATTCACATCATCGCCACC	967

Qy 646 LeuLeuLeuSerThrGlnLeuTyrTyrMetGlyArgTrpLysLeuAspSerGlyIlePhe 665
 |||
 Db 968 CTGCTCCTCAGCACGCAGCTCTATTACATGGGCCGGTGGAACTGGACTCGGGGATCTTC 1027
 Qy 666 ArgArgIleLeuHisValLeuTyrThrAspCysIleArgGlnCysSerGlyProLeuTyr 685
 |||
 Db 1028 CGCCGCATCCTCCACGTGCTCTACACAGACTGCATCCGGCAGTGCAGCGGGCCGCTCTAC 1087
 Qy 686 ValAspArgMetValLeuLeuValMetGlyAsnValIleAsnTrpSerLeuAlaAlaTyr 705
 |||
 Db 1088 GTGGACCGCATGGTGTGCTGGTCATGGGCAACGTCATCAACTGGTCGCTGCTGCCTAT 1147
 Qy 706 GlyLeuIleMetArgProAsnAspPheAlaSerTyrLeuLeuAlaIleGlyIleCysAsn 725
 |||
 Db 1148 GGGCTTATCATGCGCCCCAATGATTTTCGCTTCTACTTGTGGCCATTGGCATCTGCAAC 1207
 Qy 726 LeuLeuLeuTyrPheAlaPheTyrIleIleMetLysLeuArgSerGlyGluArgIleLys 745
 |||
 Db 1208 CTGCTCCTTTACTTCGCCTTCTACATCATCATGAAGCTCCGGAGTGGGGAGAGGATCAAG 1267
 Qy 746 LeuIleProLeuLeuCysIleValCysThrSerValValTrpGlyPheAlaLeuPhePhe 765
 |||
 Db 1268 CTCATCCCCCTGCTCTGCATCGTTTGCACCTCCGTGGTCTGGGGCTTCGCGCTCTTCTTC 1327
 Qy 766 PhePheGlnGlyLeuSerThrTrpGlnLysThrProAlaGluSerArgGluHisAsnArg 785
 |||
 Db 1328 TTCTTCCAGGGACTCAGCACCTGGCAGAAAACCCCTGCAGAGTCGAGGGAGACAACCGG 1387
 Qy 786 AspCysIleLeuLeuAspPhePheAspAspHisAspIleTrpHisPheLeuSerSerIle 805
 |||
 Db 1388 GACTGCATCCTCCTCGACTTCTTTGACGACCACGACATCTGGCACTTCTCTCCTCCATC 1447
 Qy 806 AlaMetPheGlySerPheLeuValLeuLeuThrLeuAspAspAspLeuAspThrValGln 825
 |||
 Db 1448 GCCATGTTTCGGTCCTTCTGCTGTTGCTGACACTGGATGACGACCTGGATACTGTGCAG 1507
 Qy 826 ArgAspLysIleTyrValPhe 832
 |||
 Db 1508 CGGGACAAGATCTATGTCTTC 1528

; Sequence 73, Application US/08933750C
 ; Patent No. 5932442
 ; CLONE: 1568361
 US-08-933-750C-73

Sequence Comparison B

Query Match 50.8%; Score 1999.4; DB 2; Length 2028;
 Best Local Similarity 98.8%; Pred. No. 0;
 Matches 2003; Conservative 0; Mismatches 25; Indels 0; Gaps 0;

Qy 1019 GAAGAAGACCCTGCTGGTGGCCATTGACCGAGCCTGCCCAGAAAGCGGTACCCCTCGAGT 1078
 |||
 Db 1 GNANANNACCCTGCNGGNNGCCATTACCGACCCTGCCCANACAGCCGTACCCCTCGANT 60
 Qy 1079 CCTGGCTGATTCTTTTCTGGCAGTTCCCCTTATGAGGGTTACAACCTATGGCTCCTTTGA 1138
 |||
 Db 61 CCTGGCTGANTCTNTTCTGGCAGTTCCCCTTATNANGGTTACAACCTATGGCTCCTTTNA 120
 Qy 1139 GAATGTTTCTGGATCTACCGATGGTCTGGTTGACAGCGCTGGCACTGGGGACCTCTCTTA 1198
 |||
 Db 121 CAATGTNTCTNTATCTACCGATGGTCTGGTTNACAGCNCTGGCACTGGGGACCTCTCTTA 180

Qy	1199	CGGTTACCAGGAGCCGCTCCTTTGAACCTGTAGGTACTCGGCCCCGAGTGGACTCCATGAG	1258
Db	181	CGGTTACCAGGAGCCGCTCCTTTGAACCTGTAGGTACTCGGCCCCGAGTGGACTCCATGAG	240
Qy	1259	CTCTGTGGAGGAGGATGACTACGACACATTGACCGACATCGATTCCGACAAGAATGTCAT	1318
Db	241	CTCTGTGGAGGAGGATGACTACGACACATTGACCGACATCGATTCCGACAAGAATGTCAT	300
Qy	1319	TCGCACCAAGCAATACCTCTATGTGGCTGACCTGGCACGGAAGGACAAGCGTGTCTGCG	1378
Db	301	TCGCACCAAGCAATACCTCTATGTGGCTGACCTGGCACGGAAGGACAAGCGTGTCTGCG	360
Qy	1379	GAAAAAGTACCAGATCTACTTCTGGAACATTGCCACCATTGCTGTCTTCTATGCCCTTCC	1438
Db	361	GAAAAAGTACCAGATCTACTTCTGGAACATTGCCACCATTGCTGTCTTCTATGCCCTTCC	420
Qy	1439	TGTGGTGCAGCTGGTGATCACCTACCAGACGGTGGTGAATGTCACAGGGAATCAGGACAT	1498
Db	421	TGTGGTGCAGCTGGTGATCACCTACCAGACGGTGGTGAATGTCACAGGGAATCAGGACAT	480
Qy	1499	CTGCTACTACAACCTTCTCTGCGCCACCCACTGGGCAATCTCAGCGCCTTCAACAACAT	1558
Db	481	CTGCTACTACAACCTTCTCTGCGCCACCCACTGGGCAATCTCAGCGCCTTCAACAACAT	540
Qy	1559	CCTCAGCAACCTGGGGTACATCCTGCTGGGGCTGCTTTTCTGCTCATCATCTGCAACG	1618
Db	541	CCTCAGCAACCTGGGGTACATCCTGCTGGGGCTGCTTTTCTGCTCATCATCTGCAACG	600
Qy	1619	GGAGATCAACCACAACCGGGCCCTGCTGCGCAATGACCTCTGTGCCCTGGAATGTGGGAT	1678
Db	601	GGAGATCAACCACAACCGGGCCCTGCTGCGCAATGACCTCTGTGCCCTGGAATGTGGGAT	660
Qy	1679	CCCCAAACACTTTGGGCTTTTCTACGCCATGGGCACAGCCCTGATGATGGAGGGGCTGCT	1738
Db	661	CCCCAAACACTTTGGGCTTTTCTACGCCATGGGCACAGCCCTGATGATGGAGGGGCTGCT	720
Qy	1739	CAGTGCTTGCTATCATGTGTGCCCCAACTATACCAATTTCCAGTTTGACACATCGTTCAT	1798
Db	721	CAGTGCTTGCTATCATGTGTGCCCCAACTATACCAATTTCCAGTTTGACACATCGTTCAT	780
Qy	1799	GTACATGATCGCCGGAATCTGCATGCTGAAGCTCTACCAGAAGCGGCACCCGGACATCAA	1858
Db	781	GTACATGATCGCCGGAATCTGCATGCTGAAGCTCTACCAGAAGCGGCACCCGGACATCAA	840
Qy	1859	CGCCAGCGCCTACAGTGCCTACGCCTGCCTGGCCATTGTCATCTTCTTCTGTGCTGGG	1918
Db	841	CGCCAGCGCCTACAGTGCCTACGCCTGCCTGGCCATTGTCATCTTCTTCTGTGCTGGG	900
Qy	1919	CGTGGTCTTTGGCAAAGGGAACACGGCGTTCTGGATCGTCTTCTCCATCATTACATCAT	1978
Db	901	CGTGGTCTTTGGCAAAGGGAACACGGCGTTCTGGATCGTCTTCTCCATCATTACATCAT	960
Qy	1979	CGCCACCCTGCTCCTCAGCACGCAGCTCTATTACATGGGCCGGTGGAACTGGACTCGGG	2038
Db	961	CGCCACCCTGCTCCTCAGCACGCAGCTCTATTACATGGGCCGGTGGAACTGGACTCGGG	1020
Qy	2039	GATCTTCCGCCGCATCCTCCACGTGCTCTACACAGACTGCATCCGGCAGTGCAGCGGGCC	2098
Db	1021	GATCTTCCGCCGCATCCTCCACGTGCTCTACACAGACTGCATCCGGCAGTGCAGCGGGCC	1080
Qy	2099	GCTCTACGTGGACCGCATGGTGTGCTGGTTCATGGGCAACGTCATCAACTGGTCGCTGGC	2158
Db	1081	GCTCTACGTGGACCGCATGGTGTGCTGGTTCATGGGCAACGTCATCAACTGGTCGCTGGC	1140

Qy	2159	TGCCTATGGGCTTATCATGCGCCCCAATGATTTTCGCTTCCTACTTGTGTGGCCATTGGGCAT	2218
Db	1141	TGCCTATGGGCTTATCATGCGCCCCAATGATTTTCGCTTCCTACTTGTGTGGCCATTGGGCAT	1200
Qy	2219	CTGCAACCTGCTCCTTTACTTCGCCTTCTACATCATCATGAAGCTCCGGAGTGGGGAGAG	2278
Db	1201	CTGCAACCTGCTCCTTTACTTCGCCTTCTACATCATCATGAAGCTCCGGAGTGGGGAGAG	1260
Qy	2279	GATCAAGCTCATCCCCCTGCTCTGCATCGTTTGACACCTCCGTGGTCTGGGGCTTCGCGCT	2338
Db	1261	GATCAAGCTCATCCCCCTGCTCTGCATCGTTTGACACCTCCGTGGTCTGGGGCTTCGCGCT	1320
Qy	2339	CTTCTTCTTCTTCCAGGGACTCAGCACCTGGCAGAAAACCCCTGCAGAGTCGAGGGAGCA	2398
Db	1321	CTTCTTCTTCTTCCAGGGACTCAGCACCTGGCAGAAAACCCCTGCAGAGTCGAGGGAGCA	1380
Qy	2399	CAACCGGGACTGCATCCTCCTCGACTTCTTTGACGACCACGACATCTGGCACTTCCTCTC	2458
Db	1381	CAACCGGGACTGCATCCTCCTCGACTTCTTTGACGACCACGACATCTGGCACTTCCTCTC	1440
Qy	2459	CTCCATCGCCATGTTTCGGGTCCTTCTGGTGTGTGCTGACACTGGATGACGACCTGGATAC	2518
Db	1441	CTCCATCGCCATGTTTCGGGTCCTTCTGGTGTGTGCTGACACTGGATGACGACCTGGATAC	1500
Qy	2519	TGTGCAGCGGGACAAGATCTATGTCTTCTAGCAGGAGCTGGGCCCTTCGCTTCACCTCAA	2578
Db	1501	TGTGCAGCGGGACAAGATCTATGTCTTCTAGCAGGAGCTGGGCCCTTCGCTTCACCTCAA	1560
Qy	2579	GGGGCCCTGAGCTCCTTTGTGTGCATAGACCGGTCACTCTGTCTGTGTGGGGATGAGTC	2638
Db	1561	GGGGCCCTGAGCTCCTTTGTGTGCATAGACCGGTCACTCTGTCTGTGTGGGGATGAGTC	1620
Qy	2639	CCAGCACCGCTGCCCAGCACTGGATGGCAGCAGGACAGCCAGGTCTAGCTTAGGCTTGCC	2698
Db	1621	CCAGCACCGCTGCCCAGCACTGGATGGCAGCAGGACAGCCAGGTCTAGCTTAGGCTTGCC	1680
Qy	2699	CTGGGACAGCCATGGGGTGGCATGGAACCTTGCAGCTGCCCTCTGCCGAGGAGCAGGCCT	2758
Db	1681	CTGGGACAGCCATGGGGTGGCATGGAACCTTGCAGCTGCCCTCTGCCGAGGAGCAGGCCT	1740
Qy	2759	GCTCCCCCTGGAACCCCAGATGTTGGCCAAATTGCTGCTTTCTTCTCAGTGTGGGGCCT	2818
Db	1741	GCTCCCCCTGGAACCCCAGATGTTGGCCAAATTGCTGCTTTCTTCTCAGTGTGGGGCCT	1800
Qy	2819	TCCATGGGCCCCCTGTCTTTGGCTCTCCATTTGTCCCTTTGCAAGAGGAAGGATGGAAGG	2878
Db	1801	TCCATGGGCCCCCTGTCTTTGGCTCTCCATTTGTCCCTTTGCAAGAGGAAGGATGGAAGG	1860
Qy	2879	GACACCCTCCCCATTTTCATGCCTTGCATTTTGCCCCGTCTCCTCCCCACAATGCCCCAGC	2938
Db	1861	GACACCCTCCCCATTTTCATGCCTTGCATTTTGCCCCGTCTCCTCCCCACAATGCCCCAGC	1920
Qy	2939	CTGGGACCTAAGGCCTCTTTTCTCCATACTCCCACTCCAGGGCCTAGTCTGGGGCCT	2998
Db	1921	CTGGGACCTAAGGCCTCTTTTCTCCATACTCCCACTCCAGGGCCTAGTCTGGGGCCT	1980
Qy	2999	GAATCTCTGTCTGTATCAGGGCCCCAGTTCTCTTTGGGCTGTCCCTG	3046
Db	1981	GAATCTCTGTCTGTATCAGGGCCCCAGTTCTCTTTGGGCTGTCCCTG	2028